

STN:Cas

> d his

(FILE 'HOME' ENTERED AT 15:19:20 ON 15 APR 1998)

FILE 'REGISTRY' ENTERED AT 15:19:27 ON 15 APR 1998

L1 24 S BOROSILICATE?/CNS
L2 16 S ?PHOSPHOSILICATE?/CNS
L3 24 S ?BOROSILICATE?/CNS
L4 4 S SILICON OXIDE/CN OR SILICON DIOXIDE/CN OR SILICON MONOX
L5 102 S C2HF5/MF OR C2F6/MF OR CHF3/MF OR CF4/MF OR C2H2/MF OR
L6 41 S C2H2F2/MF

FILE 'CA' ENTERED AT 15:22:58 ON 15 APR 1998

L7 75547 S (SI OR POLYSI OR POLYSILICON? OR SILICON?) (10A) (OXIDE#
L8 5444 S (L7 OR SIO OR SIO2 OR L4) AND ETCH? AND (PLASMA? OR SPU
L9 1865 S (L7 OR SIO OR SIO2 OR L4) AND ETCH? AND (GLOW?(3A)DISCH
L10 6090 S L8 OR L9
L11 275 S L10 AND (L2 OR L3 OR PSG OR BSG OR BPSG OR PBSG OR BORO
L12 0 S L10 AND (PHOSPHOBOROSILICATE?)
L13 686 S L10 AND DOP?
L14 56 S L13 AND (UNDOP? OR NONDOP?)
L15 321 S L11 OR L14

FILE 'REGISTRY' ENTERED AT 15:28:04 ON 15 APR 1998

L16 1 S PHOSPHORUS/CN
L17 1 S BORON/CN
L18 1 S ARSENIC/CN
L19 0 S L10 AND (UNDOP? OR NONDOP?)

FILE 'CA' ENTERED AT 15:29:14 ON 15 APR 1998

L20 85 S L10 AND (UNDOP? OR NONDOP?)
L21 20 S L20 AND (L16 OR L17 OR L18 OR PHOSPHORUS OR BORON OR AR
L22 321 S L15 OR L21
L23 120 S L22 AND (L5 OR L6 OR C2HF## OR C2F## OR CHF# OR CF# OR
L24 47 S L22 AND (CARBON(3A)TETRAFLUORIDE? OR TRIFLUOROMETHANE?
L25 10 S L22 AND (PERFLUOROETHANE? OR DIFLUOROETHANE? OR PERFLUO
L26 120 S L23 OR L24 OR L25
SAVE ETCHL26/A L26

FILE 'REGISTRY' ENTERED AT 15:34:52 ON 15 APR 1998

L27 90 S ?FREON?/CNS
L28 645 S ?FLON?/CNS
L29 2 S SILICIDE/CN OR POLYCIDE/CN OR SILLICIDE/CN
L30 2 S WSI2/MF OR COSI2/MF OR TISI2/MF OR TASI2/MF OR TASI2/MF
L31 1 S NISI2/MF

FILE 'CA' ENTERED AT 15:36:16 ON 15 APR 1998

L32 125 S L22 AND (L27 OR L28 OR FREON# OR FLON#)
L33 14 S L22 AND FLUOROCARBON#
L34 133 S L26 OR L32 OR L33
L35 15 S L34 AND (L30 OR L31 OR SILICIDE? OR POLYCIDE? OR SILLIC
L36 10 S L34 AND (MOSI# OR WSI# OR NISI# OR TASI# OR TISI# OR CO
L37 16 S L35 OR L36

FILE 'REGISTRY' ENTERED AT 15:39:05 ON 15 APR 1998

L38 1 S SILICON NITRIDE/CN

FILE 'CA' ENTERED AT 15:39:18 ON 15 APR 1998

L39 55 S L34 AND (L38 OR NITRIDE# OR SI3N4)

L40

1 S L34 AND PLUG?

FILE 'REGISTRY' ENTERED AT 15:40:43 ON 15 APR 1998

L41

35 S CH2F2/MF OR CH3F/MF OR FLUOROMETHANE/CN OR DIFLUOROMETH

FILE 'CA' ENTERED AT 15:41:19 ON 15 APR 1998

L42

10 S L34 AND (L41 OR CH2F# OR CH3F OR FLUOROMETHANE# OR DIFL

L43

64 S L39 OR L40 OR L42

L44

69 S L34 NOT L43

SAVE ETCHL43/A L43

SAVE GATEL44/A L44

USPAT8

=> d his

(FILE 'USPAT' ENTERED AT 12:22:54 ON 15 APR 1998)

DEL HIS

L1 61220 S (POLYSI OR SILICON# OR POLYSILICON# OR SI) (3A) (OXIDE# OR
DI
L2 1094 S (L1 OR SIO OR SIO2) (P)DOP?(P) (UNDOP? OR NONDOP?)
L3 0 S L1(P) (BOROSILICATE? OR PHOSPHOSILICAT? OR BOROPHOSPHOS
ILL
L4 1528 S L1(P) (BOROSILICATE? OR PHOSPHOSILICAT? OR BOROPHOSPHOSIL
ICA
L5 1554 S L1(P) (BPSG OR PSG OR BSG OR PBSG)
L6 70633 S SIO OR SIO2
L7 4 S L6(P) (BOROSILICATE? OR PHOSPHOSILICAT? OR BOROPHOSPHOS
ILL
L8 1582 S L6(P) (BOROSILICATE? OR PHOSPHOSILICAT? OR BOROPHOSPHOSIL
ICA
L9 1261 S L6(P) (BPSG OR PSG OR BSG OR PBSG)
L10 5188 S L2 OR L3 OR L4 OR L5 OR L7 OR L8 OR L9
L11 411 S (L1 OR L6) (P) (UNDOP? OR NONDOP?) (P) (BORON# OR PHOSPHOROU
S#
L12 5211 S L10 OR L11
L13 1683 S L12(P) ETCH?
L14 113 S L13(P) SPACER?
L15 83 S L13(P) (WSI# OR (W OR TUNGSTEN?) (10A) (SILICIDE? OR POLYCI
DE?
L16 53 S L13(P) PLUG#
L17 562 S L13(P) (SI3N4 OR NITRIDE#)
L18 96 S L17(P) (SIDEWALL? OR SPACER?)
L19 257 S L14 OR L15 OR L16 OR L18
L20 727 S L13(P) CONTACT#
L21 269 S L20(P) GATE#
L22 5 S L13(P) (C2HF5 OR C2F6 OR CHF3 OR CF4 OR C2H2 OR C3F8 OR C
4F1
L23 25 S L13(P) (TRIFLUOROMETHANE? OR PERFLUOROMETHANE? OR CARBON(
3A)
L24 1 S L13(P) (PENTAFLUOROETHANE# OR HEXAFLUOROETHANE# OR PERFLU
ORO
L25 0 S L13(P) (PERFLUOROBUTANE? OR DECAFLUOROBUTANE?)
L26 94 S L13(P) (FLUORINE? OR FLUORIDE? OR DIFLUORIDE? OR TRIFLUOR
IDE
L27 15 S L13(P) (FREON# OR FLON# OR FLUOROCARBON# OR HYDROFLUOROCA
RBO
L28 111 S L22 OR L23 OR L24 OR L25 OR L26 OR L27
L29 55 S L28(P) (PLASMA? OR SPUTTER? OR CORONA? OR GLOW?(3A) DISCHA
RGE
L30 174 S L13(P) (CF OR F)
L31 100 S L30(P) (PLASMA? OR SPUTTER? OR CORONA? OR GLOW?(3A) DISCHA
RGE
L32 136 S L29 OR L31
L33 356 S L19 OR L32
L34 161 S L21(P) ELECTRODE#
L35 455 S L33 OR L34
SAVE GATEL35/A L35
L36 114 S L35(P) (POLYCID? OR SILICIDE? OR SILICIDE?)
L37 41 S L35(P) WSI#
L38 15 S L35(P) (TASI# OR COSI# OR NISI# OR TISI# OR MOSI# OR TISI
#)
L39 130 S L36 OR L37 OR L38

L40 31 S L3) SPACER#
 L41 8 S L3) PLUG#
 L42 36 S L40 OR L41
 SAVE GATEL42/A L42
 L43 8 S L41(P)L42
 L44 2 S L40(P)L41
 SAVE GATEL44/A L44
 L45 17 S L42(P) (SI3N4 OR NITRIDE#)
 L46 5 S L41(P)L45
 L47 6 S L44 OR L46
 SAVE GATEL47/A L47
 L48 1710 S (L1 OR SIO OR SIO2) (10A) SPACER#
 L49 1105 S (SI3N4 OR NITRIDE#) (10A) SPACER#
 L50 119 S (BPSG OR PSG OR BSG OR PBSG OR BOROSILICATE? OR PHOSPHOS
 ILI
 L51 5 S L40(P)L50
 L52 5 S L51 NOT L47
 L53 334 S L49(P)L48
 L54 122 S L53(P) (DOP? OR PHOSPHORUS OR BORON OR ARSENIC)
 L55 0 S L40(P)L54
 L56 28 S L40(P) (DOP? OR PHOSPHORUS OR BORON OR ARSENIC) (P) (L1 OR
 SIO
 L57 23 S L56 NOT L51
 SAVE ETCHL57/A L57
 L58 0 S L53(P)L40
 L59 6 S L53 AND L40
 SAVE GATEL59/A L59
 L60 3 S L59 NOT (L47 OR L57)
 L61 3 S L59 AND (L47 OR L57)
 SAVE GATEL60/A L60
 SAVE GATEL61/A L61
 L62 0 S L14(P)LL50
 L63 19 S L14(P)L50
 L64 18 S L63 NOT (L47 OR L57 OR L60 OR L61)
 L65 1 S L63 NOT L64
 SAVE GATEL64/A L64
 SAVE GATEL65/A L65
 L66 13 S L14(P) (DOUBLE? OR TWO)
 L67 25289 S SPACER? (10A) (2 OR SECOND#)
 L68 28 S L14(P)L67
 L69 12581 S SPACER# (10A) (2ND OR SECOND#)
 L70 13 S L14(P)L69
 SAVE GATEL70/A L70